IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: §	
Stultz, Paul Dennis et al § §	Confirmation No.: 4212
Serial No. 09/919,444 § §	Group Art Unit: 2137
Filed: July 31, 2001 § §	Examiner: Pyzocha, Michael J.
For: COMPUTER SECURITY DURING § POWER-ON SELF TEST §	

REPLY BRIEF PURSUANT TO 37 C.F.R. §41.41

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Commissioner for Patents
P.O. Box 1450
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Dear Sir:

     This Paper is submitted pursuant to 37 CFR §41.41 as a Reply Brief to the Examiner's Answer, mailed on December 8, 2006.

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1.   <u>**Status of Claims**</u>

The status of the claims is as follows:

Claims 1, 3-12, 14, 24 and 26-32 are pending in the application and are rejected.

Claims 2, 13 and 25 are canceled.

Claims 1, 3-12, 14-24 and 26-32 are being appealed.

2.   <u>**Grounds of Rejection to be Reviewed on Appeal**</u>

Whether claims 1, 3-12, 14-24 and 26-32 are unpatentable under 35 U.S.C. §103(a) over NEC and in view of Microsoft Computer Dictionary (Third Edition, 1997), further in view of Hobson et al (U.S. 6,065,067), and further in view of Willner et al (U.S. 6,064,666).

3.   **Argument**

The rejections in this application are based on four references: (1) NEC; (2) Microsoft Computer Dictionary (Third Edition, 1997) (hereinafter Microsoft); (3) U.S. Patent 6,065,067, Hobson et al (hereinafter Hobson); and (4) U.S. Patent 6,064,666, Willner et al (hereinafter Willner). In the Appeal Brief, Applicants argue that:

"The invention specifically claims comparing a first input to a pre-selected input characteristic, ignoring an input during a power-on self test procedure unless the first input matches the pre-selected input characteristic and prompting a user to enter a password when the first input matches the pre-selected input characteristic.

In response to a password entry, the following is claimed:

1.   The processor ignores an input other than the pre-selected input characteristic if:

a)   the password is not entered within a pre-specified time period after the prompt; and

b)   the password is entered within the pre-specified time period, but there is no match with the stored password; and

2.   The processor processes other inputs in addition to the pre-selected input characteristic if:

(a)   the password is entered within the pre-specified time period and matches the stored password.

In addition, a timeout is added to the password to provide an environment where the system boot or reboot may not be halted during a POST by an unauthorized user. The present invention claims "instructions causing a system boot or reboot not to be halted during POST procedure, by an unauthorized user, by adding a timeout to the password."

In Hobson, the computer is restarted in response to an incorrect BIOS password. Willner also relates to computer restarting. Neither reference teaches not halting a boot or reboot in progress during a POST procedure, as claimed, by adding a timeout for this purpose.

In view of the foregoing, it is impossible to render the subject matter of the claims as a whole obvious based on a single reference or any combination of the references, and the above explicit terms of the statute cannot be met. As a result, the USPTO's burden of factually supporting a *prima facie* case of obviousness clearly cannot be met with respect to the claims, and a rejection under 35 U.S.C. §103(a) is not applicable.

Therefore, there is no support for an obviousness rejection of the claimed subject matter as a whole because the references fail to disclose each element or suggest the missing elements."

In response to the Applicant's argument, the Examiner argued that:

"Appellant argues that the references fail to teach or suggest all claim elements.

Appellant has not addressed any specific claims or claimed limitations in this argument so all claims stand or fall together with the independent claims.

With respect to independent claims 1, 12 and 23, NEC discloses a computer system, method and computer program product comprising: a processor; a memory coupled to the processor (see page 2-8 where memory coupled to a processor are in all computer systems), the memory storing a pre-selected input characteristic (see page 2-18 where the pre-selected input is the "F2" key); a stored password; instructions, during a POST procedure when extended security is enabled, causing the computer system to enter a mode non-responsive to inputs except the pre-selected input; instructions causing the processor to compare a first input entered by the user to the pre-selected input characteristic; instructions causing the processor to ignore an input during a power-on self test procedure unless the first input matches the pre-selected input characteristic (see page 2-18 and 2-29 where the setup is not entered and the system continues the POST procedure unless "F2" is pressed and when "F2" is pressed the security password described on page 2-29 must be entered); instructions causing the processor to prompt a user of the computer system for a password when the first input matches the pre-selected input characteristic; instructions causing the processor to compare a password entered by the user to the stored password; and instructions causing the processor to process inputs during the power-on self test procedure subsequent to the first input when the password entered by the user matches the stored password (see page 2-29 when "F2" is pressed the security password described on page 2-29 must be entered and as with all password it is compared with a previously stored password and when a match occurs the user is allowed to enter the setup which is described in pages 2-18 through 2-35).

Microsoft teaches the method of a timeout to protect the system against unauthorized users (see page 469) and therefore the combination of NEC and Microsoft teaches a timeout on the BIOS password to protect it against unauthorized users.

Hobson teach restarting the computer when an incorrect BIOS password is entered (see column 3 lines 14-26); and Willner teaches performing the same action when either an incorrect password is entered or a timeout has occurred (see column 12 lines 9-13). Therefore the

combination of NEC, Microsoft, Hobson, and Willner teaches ignoring other inputs besides the predetermined input, because when the system is restarted all inputs are again ignored as the POST procedure is started over again, when the password is incorrect or times out.

Appellant argues the references do not suggest desirability of the combination.

The Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case one of ordinary skill in the art would have been motivated to combine the teaching of Microsoft in the NEC in order to protect the system against crackers (see Microsoft page 469). Furthermore, one of ordinary skill in the art to combine the teachings of Hobson in the combined NEC and Microsoft system; motivation to do so would have been to protect the system against changing the system resources (see Hobson, column 3 lines 14-26). Finally, one of ordinary skill in the art to combine the teachings of Willner in the combined NEC, Microsoft and Hobson system; motivation to do so would have been to block a request (i.e. prevent unauthorized requests) (see Willner, column 12 lines 14-22). Therefore, the references provide a desirability to make the proposed combinations.

Appellant argues neither Hobson nor Willner teach not halting a boot or reboot in progress during a POST procedure by adding a timeout.

With respect to this argument Appellant specifically states that each reference teaches restarting a system as opposed to not halting a boot or reboot. However, these references were not relied upon for the specific teaching of a timeout. The Microsoft reference was relied upon for the teaching of a timeout to prevent the system to be halted by an unauthorized user (see page 469). Hobson and Willner indeed teach restarting a system when an incorrect password is entered or a timeout occurs. This restarting merely starts the POST procedure over again and therefore the POST procedure is still being processed after the timeout occurs and the system is restarted. Therefore the combination of NEC, Microsoft, Hobson and Willner teaches not halting a boot or reboot in progress during a POST procedure by adding a timeout."

The Examiner responded to the Applicants argument that "In Hobson, the computer is restarted in response to an incorrect BIOS password. Willner also relates to computer restarting. Neither reference teaches not halting a boot or reboot in progress during a POST procedure, as claimed, by adding a timeout for this purpose" by stating "The Examiner

recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the not halting a boot or reboot. However, these references were not relied upon for the specific teaching of a timeout. The Microsoft reference was relied upon for the teaching of a timeout to prevent the system to be halted by an unauthorized user (see page 469). Hobson and Willner indeed teach restarting a system when an incorrect password is entered or a timeout occurs. This restarting merely starts the POST procedure over again and therefore the POST procedure is still being processed after the timeout occurs and the system is restarted."

Applicants submit that the Examiner is in error in stating that the Microsoft reference teaches "a timeout to prevent the system to be halted by an unauthorized user." The Microsoft reference simply states that a time out is:

> "An event that indicates that a predetermined amount of time has elapsed without some other expected event taking place. The time-out event is used to interrupt the process that had been waiting for the other expected event. For example, a dial-up remote system might allow the user 60 seconds to log in after making a connection. If the user fails to enter a valid login name and password within this time, the computer breaks the connection, thus protecting itself against crackers as well as freeing a phone line that may have gone dead."

Along with the fact that the Examiner admits that "Hobson and Willner indeed teach restarting a system when an incorrect password or a timeout occurs", Applicants submit that the references do not teach "instructions <u>causing a system boot or reboot</u> **not** <u>to be halted during a POST procedure</u>, by an unauthorized user...."

4.   **Legal Precedent**

As the PTO recognizes in MPEP §2142:

The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

The USPTO clearly cannot establish a *prima facie* case of obviousness in connection with the amended claims for the following reasons.

35 U.S.C. §103(a) provides that:

[a] patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that the <u>subject</u> <u>matter</u> <u>as</u> <u>a</u> <u>whole</u> would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains ... (emphasis added)

Thus, when evaluating a claim for determining obviousness, <u>all limitations of the claim</u> <u>must be evaluated</u>. However, the references, alone, or in combination, do not teach the invention as a whole.

Therefore, it is impossible to render the subject matter of the claims as a whole obvious based on a single reference or any combination of the references, and the above explicit terms of the statute cannot be met. As a result, the USPTO's burden of factually supporting a *prima facie* case of obviousness clearly cannot be met with respect to the claims, and a rejection under 35 U.S.C. §103(a) is not applicable.

There is still another compelling, and mutually exclusive, reason why the references cannot be combined and applied to reject the claims under 35 U.S.C. §103(a).

The PTO also provides in MPEP §2142:

[T]he Examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. In view of all factual information, the Examiner must then make a determination whether the claimed invention "as a whole" would have been obvious at that time to that person. ...[I]mpermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

Here, the references do not teach, or even suggest, the desirability of the combination.

Thus, neither of these references provides any incentive or motivation supporting the desirability of the combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. §103(a) rejection of the claims.

In this context, the MPEP further provides at §2143.01:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. (emphasis in original)

In the above context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. In the present case it is clear that the USPTO's combination arises solely from hindsight based on the invention without any showing, suggestion, incentive or motivation in either reference for the combination as applied to the claims. Therefore, for this mutually exclusive reason, the USPTO's burden of factually supporting a *prima facie* case of obviousness clearly cannot be met with respect to the claims, and the rejection under 35 U.S.C. §103(a) is not applicable.

4.   **Conclusion**

Therefore, the Applicants would have no motivation to combine NEC, Microsoft, Hobson and Willner to provide instructions causing a system boot or reboot not to be halted during a POST procedure, by an unauthorized user, and as such, a *prima facie* case cannot be made.

In view of all of the above, the allowance of claims 1, 3-12, 14-24 and 26-32 is respectfully requested.

Respectfully submitted,

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